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Binding of protonated forms of o-phenylenediamine and some other cations with the micelles of sodium dodecyl sulfate according to data from pH measurements

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Abstract

Binding of the protonated forms of o-phenylenediamine (oPn) with micelles in aqueous solutions of sodium dodecyl sulfate (SDS) was studied by potentiometric titration. The dependences of the apparent pro-tonization constant (log K1 app) for oPn on the content of surfactants and some ions (Na+, NH4 +, and Me4N+) were revealed. The micellar binding constants for the cations studied were obtained for the first time by computer simulation. The approach proposed is applicable for any other ions and surfactants. © 1996 MAK Haya/Interperiodica Publishing.